

What is claimed is:

Rule 1.12e
1 26. An electric machine with a multi- pole rotor comprising:
2 - ferromagnetic poles separated from each other by radially oriented slots, wherein the
3 width of said slots changes stepwise in tangential direction; and
4
5 - a plurality of permanent magnets per pole, wherein said magnets are placed into said
6 radial slots between adjacent poles in such a manner that the total width of magnets in a
7 given radial slot varies from the bottom to the top of the slot.

1 27 A rotor, as set forth in claim 26, wherein said permanent magnets have rectangular shapes.

1 28 A rotor, as set forth in claim 1, wherein said permanent magnets are predominantly
2 tangentially magnetized.

1 29 A. An electric machine with a multi- pole rotor comprising:
2 - ferromagnetic poles separated from each other by radially oriented slots, wherein
3 said slots are trapezoidally shaped; and
4
7 - a plurality of trapezoidally shaped permanent magnet in each said slot.

1 30 8. An electric machine with a multi- pole rotor comprising:
2 - ferromagnetic poles separated from each other by radially oriented slots, wherein
3 said slots are trapezoidally shaped,
4
7 - a plurality of trapezoidally shaped permanent magnets in each said slot, and
8
9 - a plurality of non- magnetic wedges per each said rotor pole.

1 31 6. A synchronous machine with a rotor comprising:
2 - a plurality of iron core segments per pole;
3
5 - a plurality of permanent magnets per pole;
6
7 - an optional squirrel cage; and
8

A
C
1 9 - a stator with two or more separate windings, or a winding capable to generate more
10 than one polarity of the air gap field, such as Dahlander pole- changing winding, a pole-
11 amplitude modulated winding, a pole- phase modulated winding etc.

1 32 A rotor, as set forth in claim 6, wherein said permanent magnets have rectangular shapes.

1 33 31 A rotor, as set forth in claim 6, wherein said permanent magnets have trapezoidal shapes.

1 34 31 9. An electric machine with a multi-pole rotor comprising:

- 2 - a plurality of tangentially magnetized permanent magnets;
3
4 - a plurality of radially magnetized permanent magnets, and
5
6 - a plurality of coils.